



HealthIT - Kabarak University County Proximal University (CPU)

Health Information Systems Meetups and Hackathon

September 2021

Background

The HealthIT project continues to support the implementation of various Information Systems on the Ministry of Health. These systems include the extended KenyaEMR, the Child Protection Information System (CPIMS), the Data Analytics Platform (DAP), the Kenya Health Information System (KHIS), the MoH Service Desk, the MoH Virtual Academy and the Kenya Master Health Facilities List (KMHFL).

The increased adoption of these systems countywide has led to the identification various system challenges and emergent user requirements that need to be addressed on an ongoing basis. Various mechanisms have been put in place to provide the much needed development efforts such as fulltime developers who address system errors and periodic hackathons where new products are developed to meet the emergent user requirements.

Objectives

The Kabarak University HealthIT CPU will be holding a series of HIS meetups and a hackathon in September in order to achieve the following objectives;

1. To enhance the technical understanding of students in selected MoH Information Systems in readiness for further system development, customization and support.
2. To work with system users, developers and students to develop solutions to identified challenges in selected MoH Information systems.

Who can participate?

Current undergraduate and masters students taking Computer Science, Information Technology and IT Security and Audit at Kabarak University.

How to participate

1. Form teams of between 2 – 5 persons
2. Register on ... <https://forms.gle/naMRfvsPRKYsT1hK6>
3. Attend the prehackathon meetups between 3rd and 23rd September
4. Compete in the main hackathon on 24th and 25th September

Benefits of participating

1. **Device Shopping Vouchers on Jumia** - 1st Place – KES 30,000, 2nd Place – KES 20,000 and 3rd Place – KES 10,000.
2. **Class Project Identification** – Participants will be able to identify areas for their Y3 group project, Y4 individual project and Masters projects.

Dates

- Pre-hackathon HIS Meetups - 3rd - 22nd September (*various dates*)
- Main Hackathon - September 23rd and 24th 2021

Venue

- Physical events - Kabarak University Online Conference Room.
- Online Sessions - Via Zoom.

The Hackathon Challenges

Area 1- The Annual Workplan Process

Task	The Challenge	Hackathon Agenda	Expected Output
Automation of the AWP data collection and consolidation process.	<ul style="list-style-type: none">• The AWP process is largely manual• The process is prone to errors occasioned by lack of data validation on the manual forms.• The integration of data from the KHIS is manual and prone to error.	<ul style="list-style-type: none">• Develop a web and mobile app to collect AWP data• Integrate with KHIS to pull data	An AWP data collection and reporting system

Area 2 – Child Protection Information Management System (CPIMS)

Task	The Challenge	Hackathon Agenda	Expected Output
To extend the functionality of the CPIMS System	It is currently not possible for 3 rd party application developers to consume data from the CPIMS	Develop API endpoints	API endpoints for use in 3 rd party application development
	The CPIMS system is only available on a web interface which limits its use from mobile devices.	Develop a CPIMS Mobile application for selected functionality	A CPIMS Mobile Application
	There is need for additional data visualizations	Data visualizations	Data Visualizations
	The OVC system does not have an offline mode.	Develop the offline mode for the OVC interface	OVC module offline functionality.

Area 3 – Data Analytics Platform (DAP)

Task	The Challenge	Hackathon Agenda	Expected Output
To enhance the functionality of the DAP platform	The use of the DAP platform is not optimal due to the lack of some reports that users require.	Develop a self service report generation module	A custom report generation module

Area 4 - Extended KenyaEMR

Task	The Challenge	Hackathon Agenda	Expected Output
To enhance the functionality of the Extended KenyaEMR	The Extended KenyaEMR platform has some incomplete modules <ul style="list-style-type: none">• Oncology Module• Mortuary Module	To develop the remaining functionality for the incomplete modules	Fully functional modules

Additional challenges will be communicated during the HIS meetups

Pre Hackathon HIS Meetups

Date	Time	Activity	Venue
3 rd Sep	5:00 pm – 5:30 pm	Hackathon Overview	Online
		The Design Thinking Process	Online
6 th Sep	5:30 pm - 7:00 pm	Design Thinking – Prototyping Process and Tools	Online
TBD	TBD	The Annual Work-planing Process Overview and Challenges	Online & KABUO Conference Room
TBD	TBD	The Extended KenyaEMR System Overview and Challenges	Online & KABUO Conference Room
TBD	TBD	The Data Analytics Platform Overview and Challenges	Online & KABUO Conference Room
TBD	TBD	The CPIMS System Overview and Challenges	Online & KABUO Conference Room

The event dates, time and event links will be provided to registered participants

Post Hackathon

- Hackathon participants will continue to work with the KABU CPU and UoN HealthIT teams to finalize and deploy solutions within 8 weeks (before 15th December 2021).
- Those who chose to use the hackathon challenges for their class projects will also continue to work with their University assigned supervisors.

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Health IT – Kabarak University CPU